

# Monthly water situation report: Devon and Cornwall Area

## 1 Summary - June 2025

Devon and Cornwall received 129% of the June long term average (LTA) rainfall, which was above normal for the time of year. Soil moisture deficit decreased toward the middle of June, before increasing again and finishing the month at a similar deficit as the beginning of June. Monthly mean river flows were normal to notably high for the time of year across the area. Groundwater levels ended the month between normal to exceptionally high for the time of year. Total reservoir storage across Devon and Cornwall ended the month at 80%, with Wimbleball, Colliford and Roadford reservoirs at 72%, 73% and 87% respectively at the end of June.

### 1.1 Rainfall

Devon and Cornwall received 99mm of rain during June (129% of the June LTA), which is above normal for the time of year. The most significant periods of rain occurred during the first week of June and between 11 and 13 June. The remainder of the month was relatively dry, apart from localised pockets of rain.

In June, rainfall was normal or above normal in most hydrological areas, except the Avon, Dart and Erme hydrological area, which received notably high rainfall for the time of year. Rainfall totals were higher in the central hydrological areas, with the western hydrological areas of Cornwall and the eastern hydrological areas of Devon receiving less rain. Cumulative rainfall was mainly above normal in the last 3 months, except the North Cornwall hydrological area, which was notably high, and the hydrological areas in east Devon which were normal. Cumulative rainfall in the last 6 months also reflects mainly drier weather to the east (normal) and wetter weather to the west (above normal), apart from the Seaton, Looe and Fowey hydrological area where rainfall was also normal. In the last 12 months, cumulative rainfall was normal to above normal for the time of year across Devon and Cornwall.

### 1.2 Soil moisture deficit

SMD decreased during the first half of June, in response to the rainfall during this period, before increasing again and ending the month at a similar level to the beginning of the month. The average deficit for most of Devon and Cornwall was between 71 and 100mm, apart from the Seaton, Looe and Fowey, Tamar and Avon, Dart and Erme hydrological areas where the

average deficit was between 41 and 70mm. The average deficit was highest in the Otter, Sid, Axe and Lim hydrological area recording a deficit of between 101 and 130mm.

The difference between the SMD LTA and the SMD at the end of June reflected a similar pattern. The smallest difference of 6 to 25mm was in the Seaton, Looe and Fowey, Tamar and Avon, Dart and Erme hydrological areas, with the largest difference of 51 to 75mm in the Otter, Sid, Axe and Lim catchment. All other hydrological areas recorded a difference of 26 to 50mm from the LTA for the time of year.

The SMD at the end of June was higher (drier) than the LTA for the time of year and higher (drier) than the SMD at the end of June 2024.

### 1.3 River flows

June monthly mean river flows were normal to notably high for the time of year at all sites across the area, with lower mean monthly flows in east Devon which reflects the spatial variation in rainfall throughout the month.

Daily mean flows increased at all sites during the first part of June in response to heavy rainfall, before falling again in the second half of the month. On 30 June, all reporting sites in Devon and Cornwall recorded normal daily mean flows.

Due to data accuracy concerns, Thorverton on the River Exe, St Erth on the River Hayle, and Gunnislake on the River Tamar have been excluded from the June report.

### 1.4 Groundwater levels

On 30 June, groundwater levels were classed as follows:

- Normal at Bussels No7A (monitoring the Dawlish Sandstone), Coleford Production (monitoring the Permian Breccias and Sandstones), Winnards Perch (monitoring the Staddon Formation), Woodbury Common No2 (monitoring the Budleigh Salterton Pebble Beds), and Woodleys No1 (monitoring the Otterton Sandstone Formation)
- Above normal at Branscombe Lane (monitoring the Dawlish Sandstone)
- Exceptionally high at Whitlands (monitoring the Upper Greensand).

Groundwater levels at all sites continue to be in recession, which is normal for the time of year.

## 1.5 Reservoir stocks

Total reservoir storage was 80% at the end of June, which is an overall decrease in storage of 6% since the end of May. This is higher than storage at the same time in 2022 (the most recent drought year), which was 68%. At the end of June, storage at Wimbleball, Colliford and Roadford was 72%, 73% and 87% respectively, compared to 65%, 58%, and 76% at the same time in 2022.

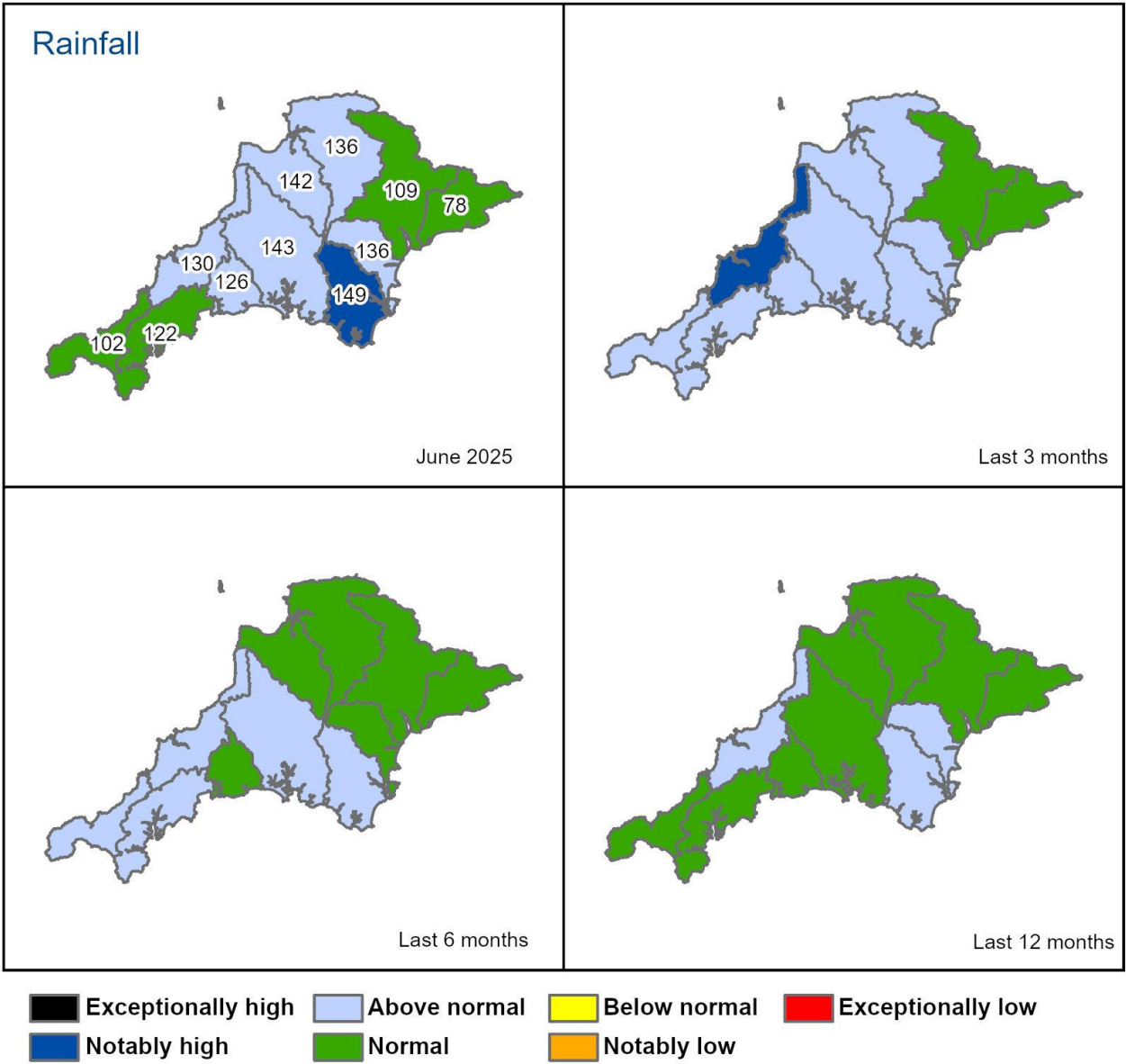
Author: Devon and Cornwall Hydrology, [hydrology.dandc@environment-agency.gov.uk](mailto:hydrology.dandc@environment-agency.gov.uk)

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## 2 Rainfall

### 2.1 Rainfall map

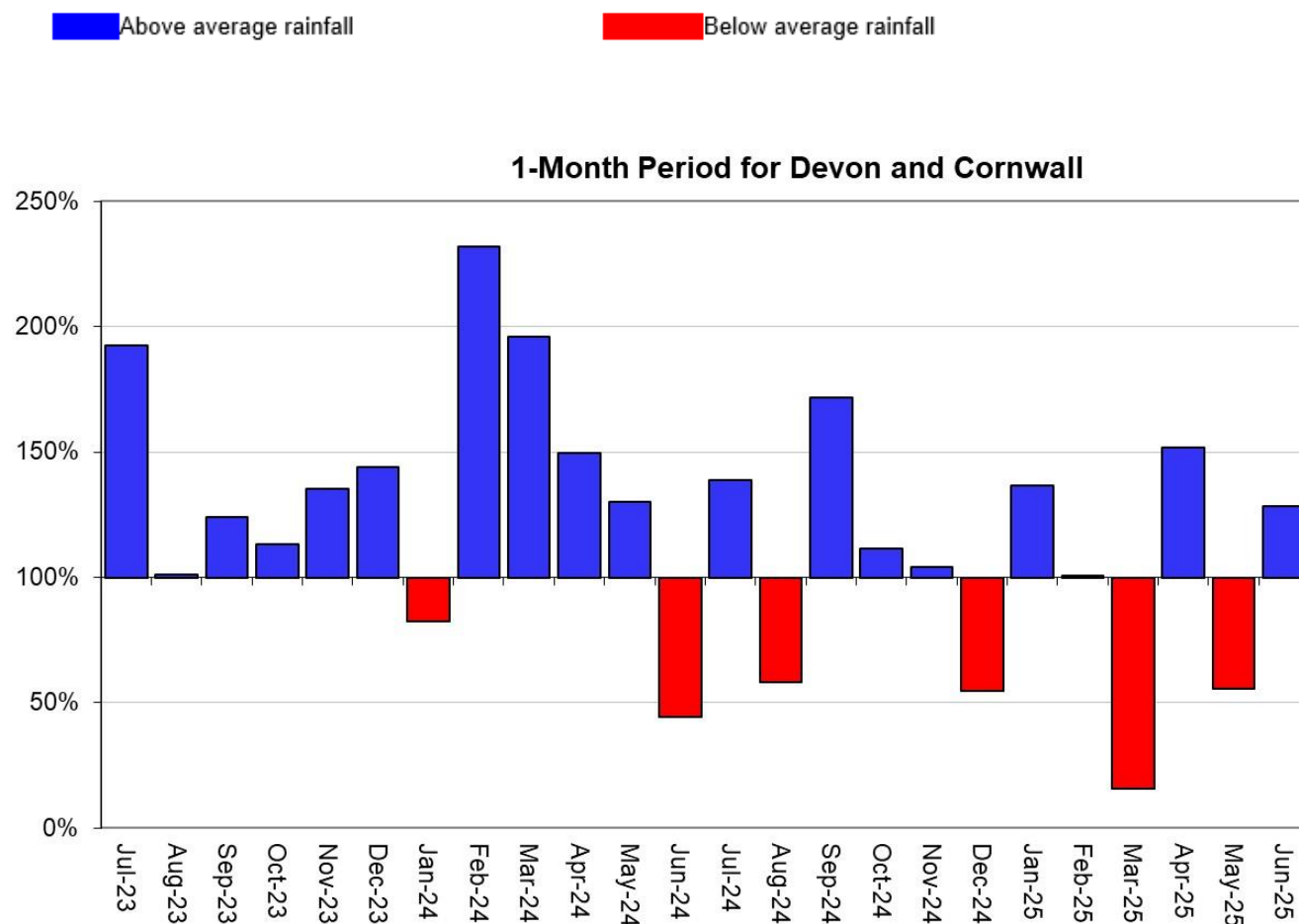
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 30 June 2025), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office. Crown copyright, 2025). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. Crown copyright. All rights reserved. Environment Agency, 100024198, 2025.

## 2.2 Rainfall charts

Figure 2.2: Monthly rainfall totals for the past 24 months as a percentage of the 1991 to 2020 long term average for Devon and Cornwall area.

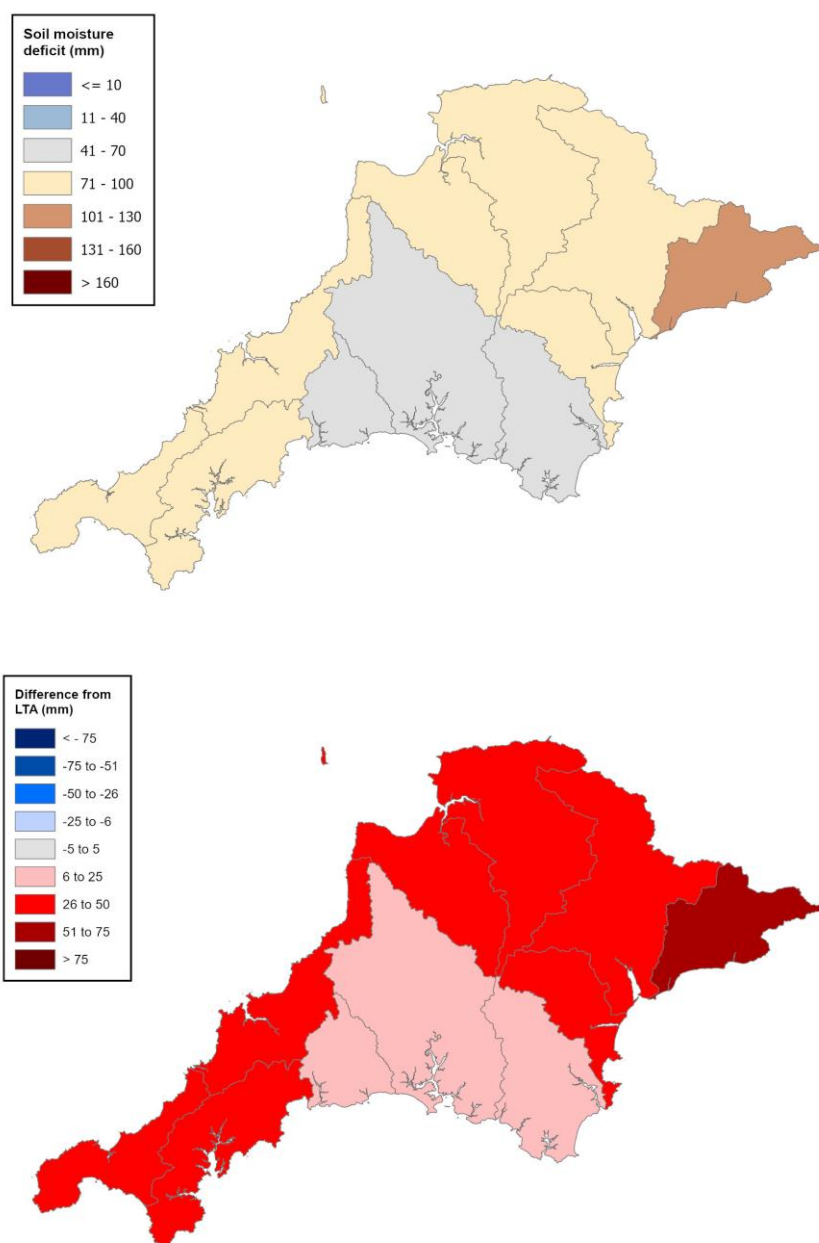


Rainfall data for 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2025). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2025).

## 3 Soil moisture deficit

### 3.1 Soil moisture deficit map

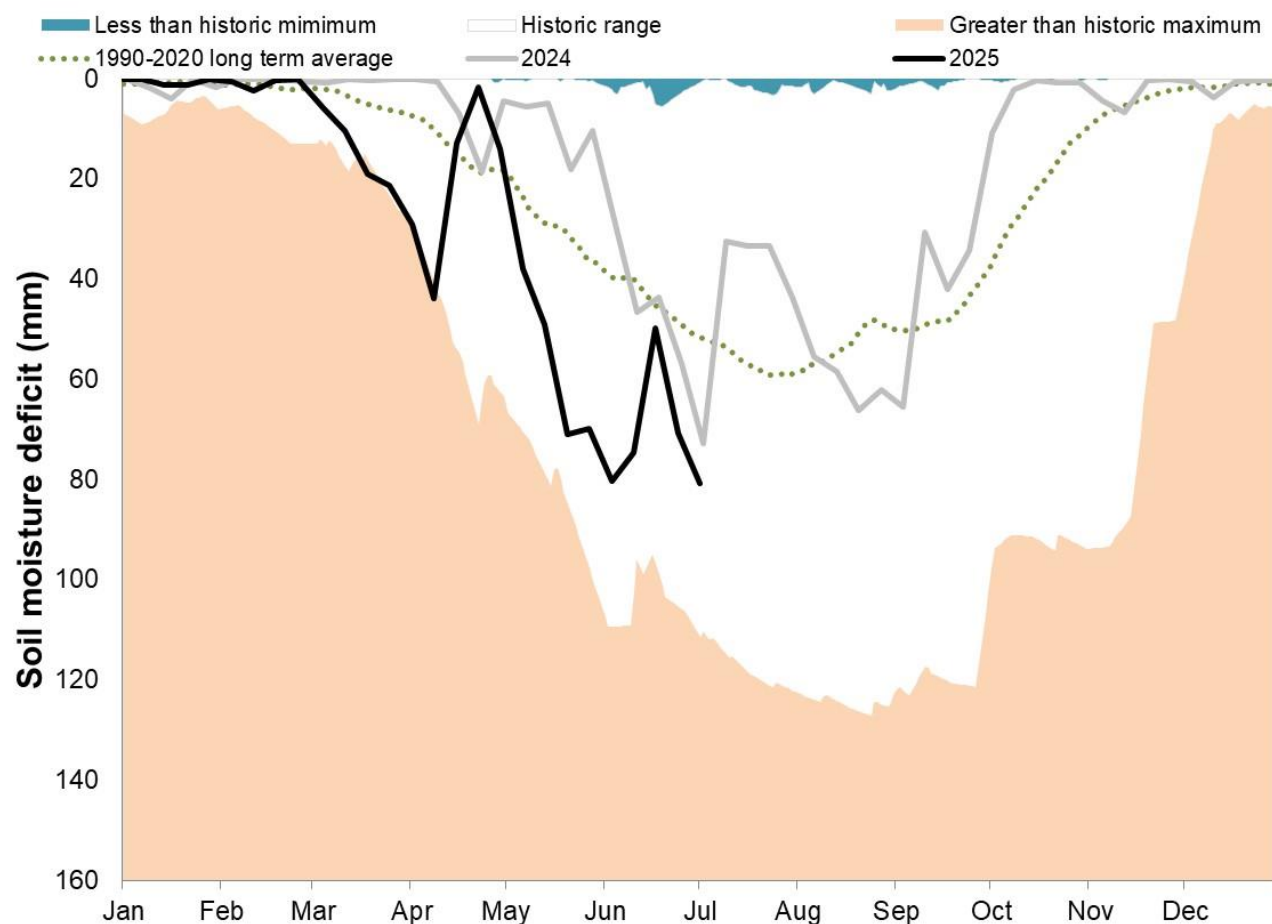
Figure 3.1: Top map shows soil moisture deficit for week ending 30 June 2025. Bottom map shows the difference (mm) between the actual soil moisture deficit and the 1991 to 2020 long term average soil moisture deficits. MORECS data for real land use.



(Source: Met Office. Crown copyright, 2025). All rights reserved. Environment Agency, 100024198, 2025.

### 3.2 Soil moisture deficit charts

Figure 3.2: Latest soil moisture deficit compared to previous year, maximum, minimum, and 1991 to 2020 long term average. Weekly MORECS data for real land use.

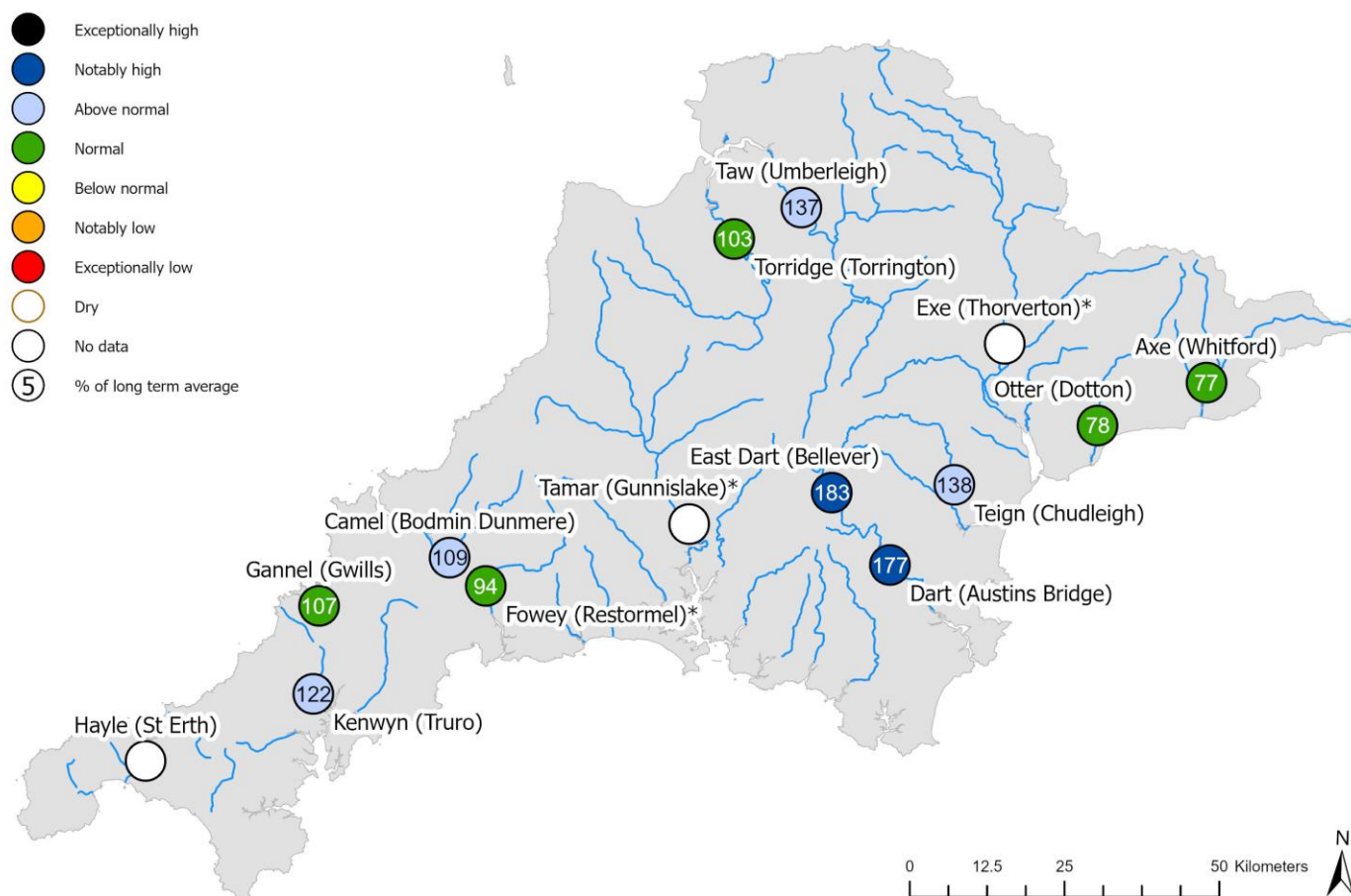


(Source: Met Office. Crown copyright, 2025). All rights reserved. Environment Agency, 100024198, 2025

## 4 River flows

### 4.1 River flows map

Figure 4.1: Monthly mean river flow for indicator sites for June 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic June monthly means. Table available in the appendices with detailed information.

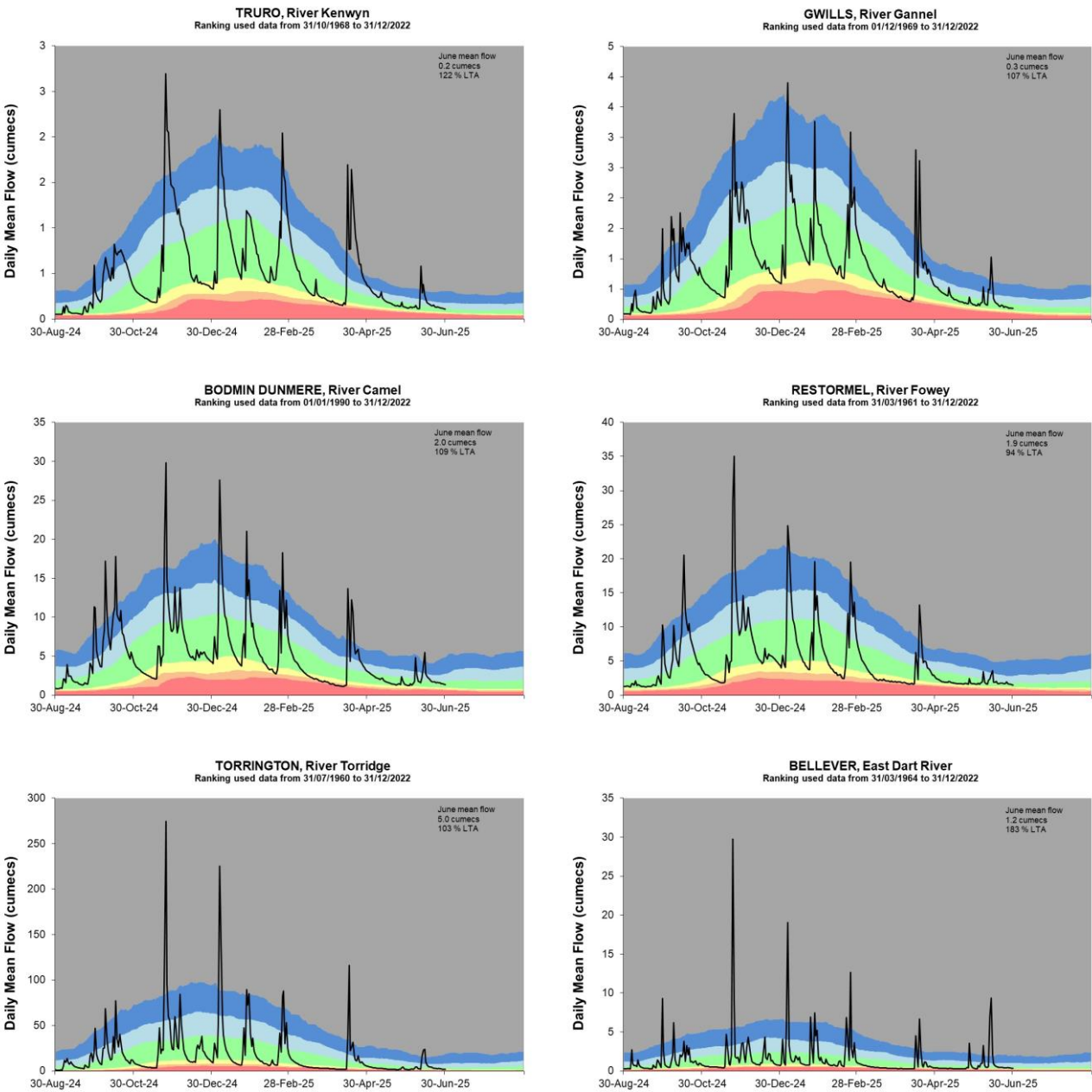
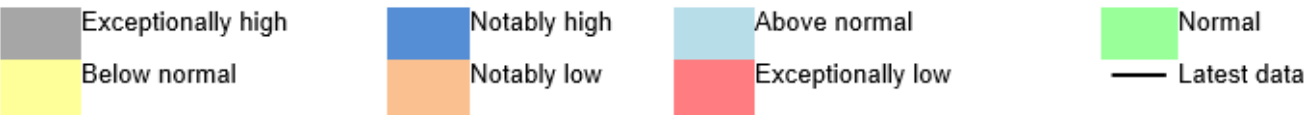


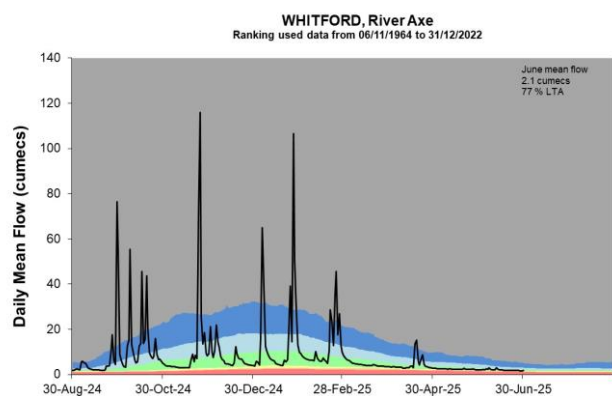
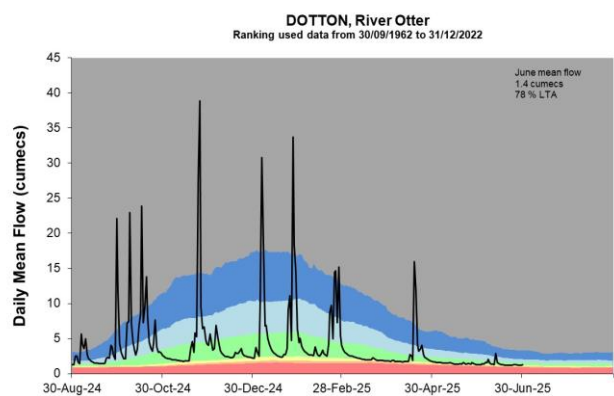
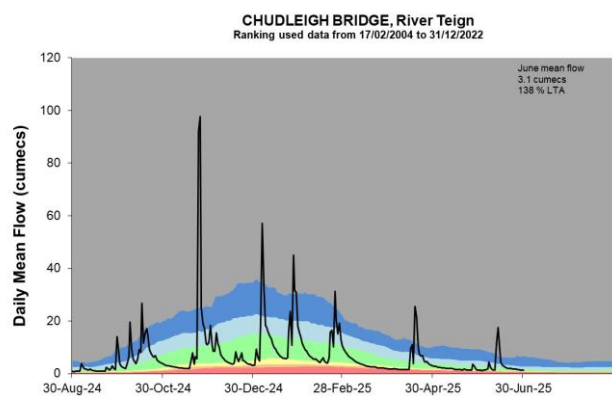
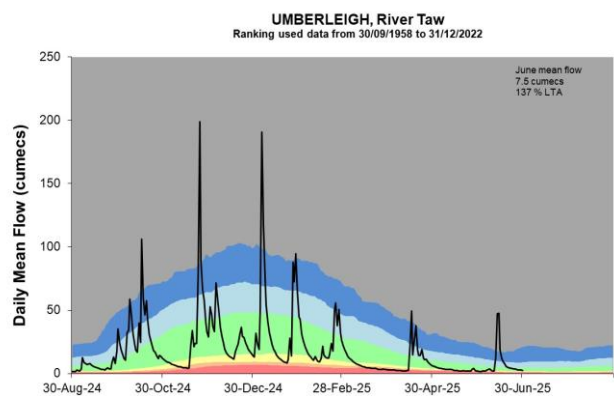
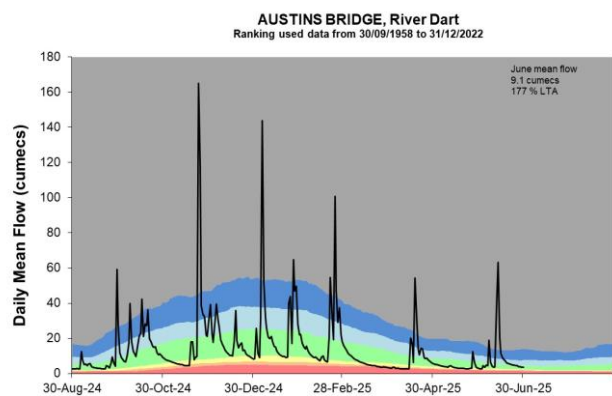
(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2025.



4.2 River flow charts

Figure 4.2: Daily mean river flow for indicator sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



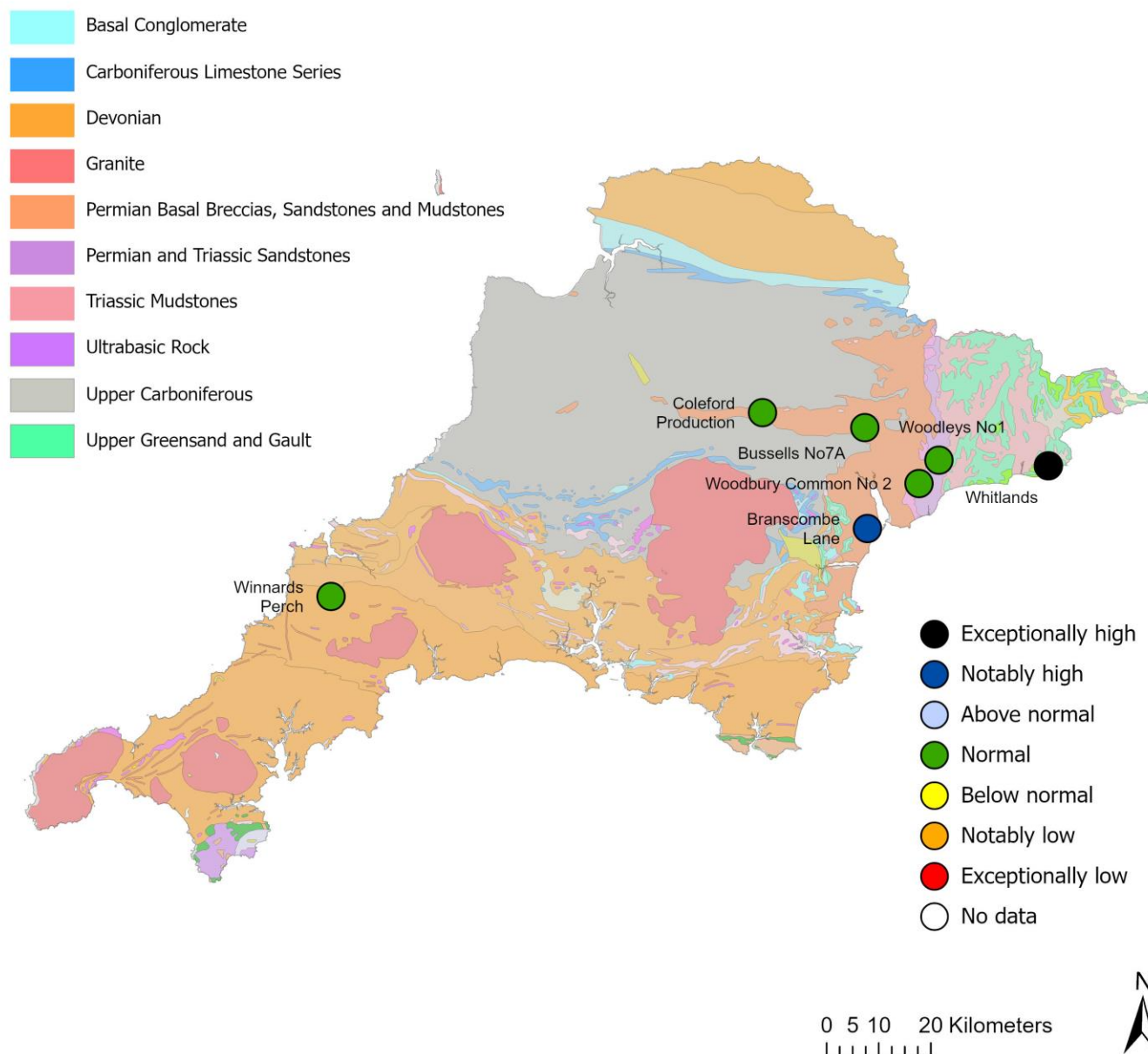


Source: Environment Agency.

## 5 Groundwater levels

### 5.1 Groundwater levels map

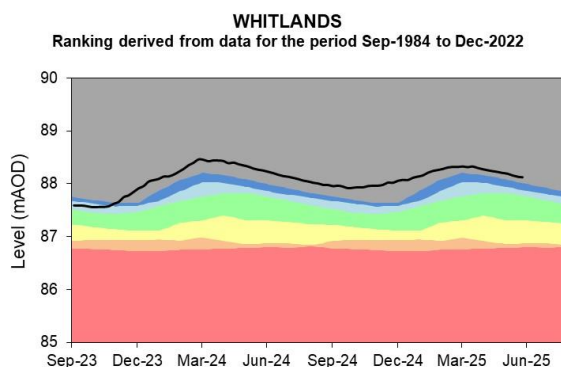
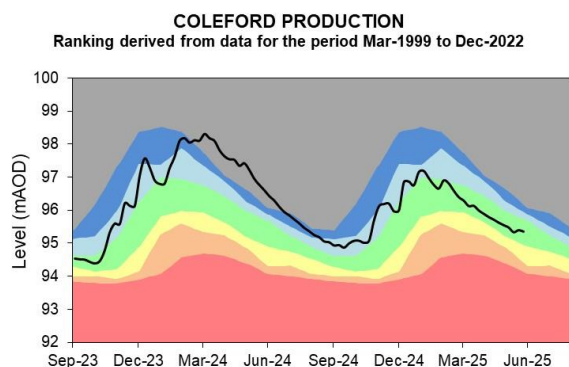
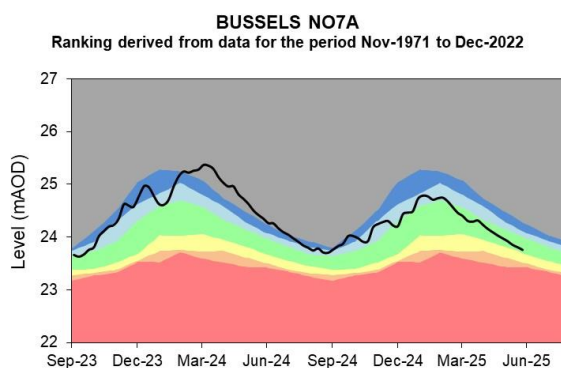
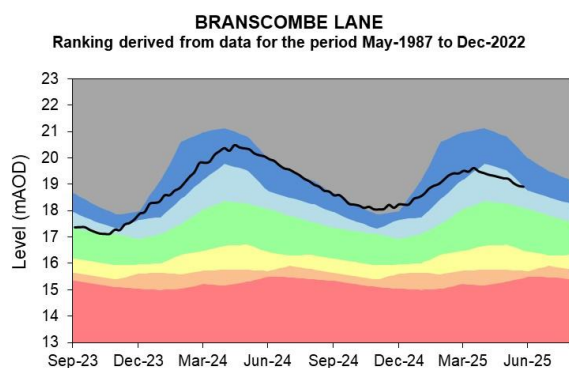
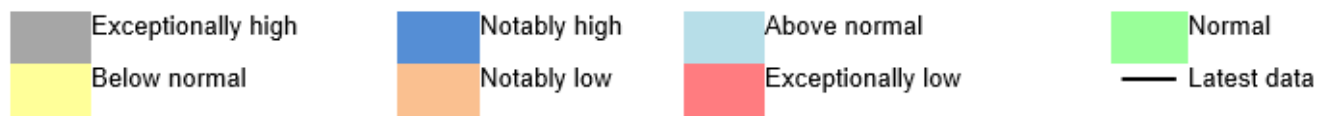
Figure 5.1: Groundwater levels for indicator sites at the end of June 2025, classed relative to an analysis of respective historic June levels. Table available in the appendices with detailed information.

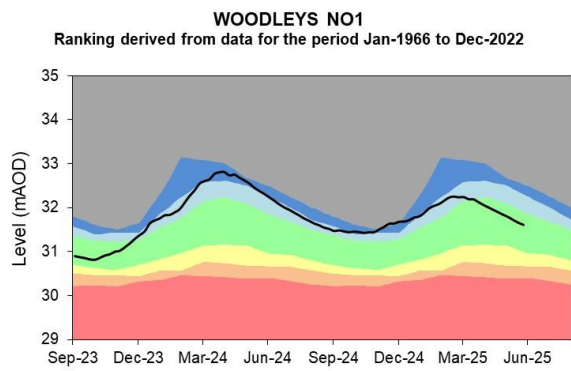
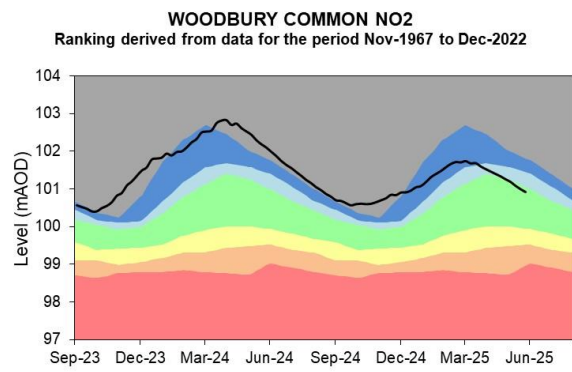
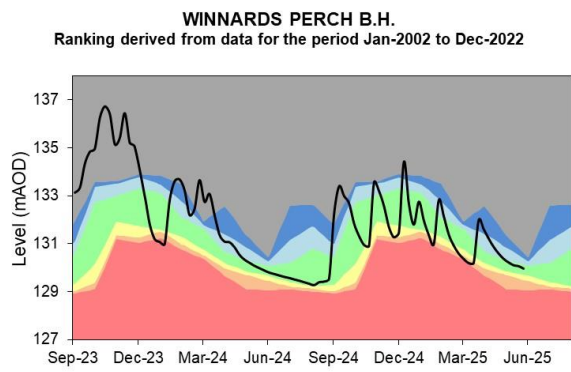


(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2025.

## 5.2 Groundwater level charts

Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.

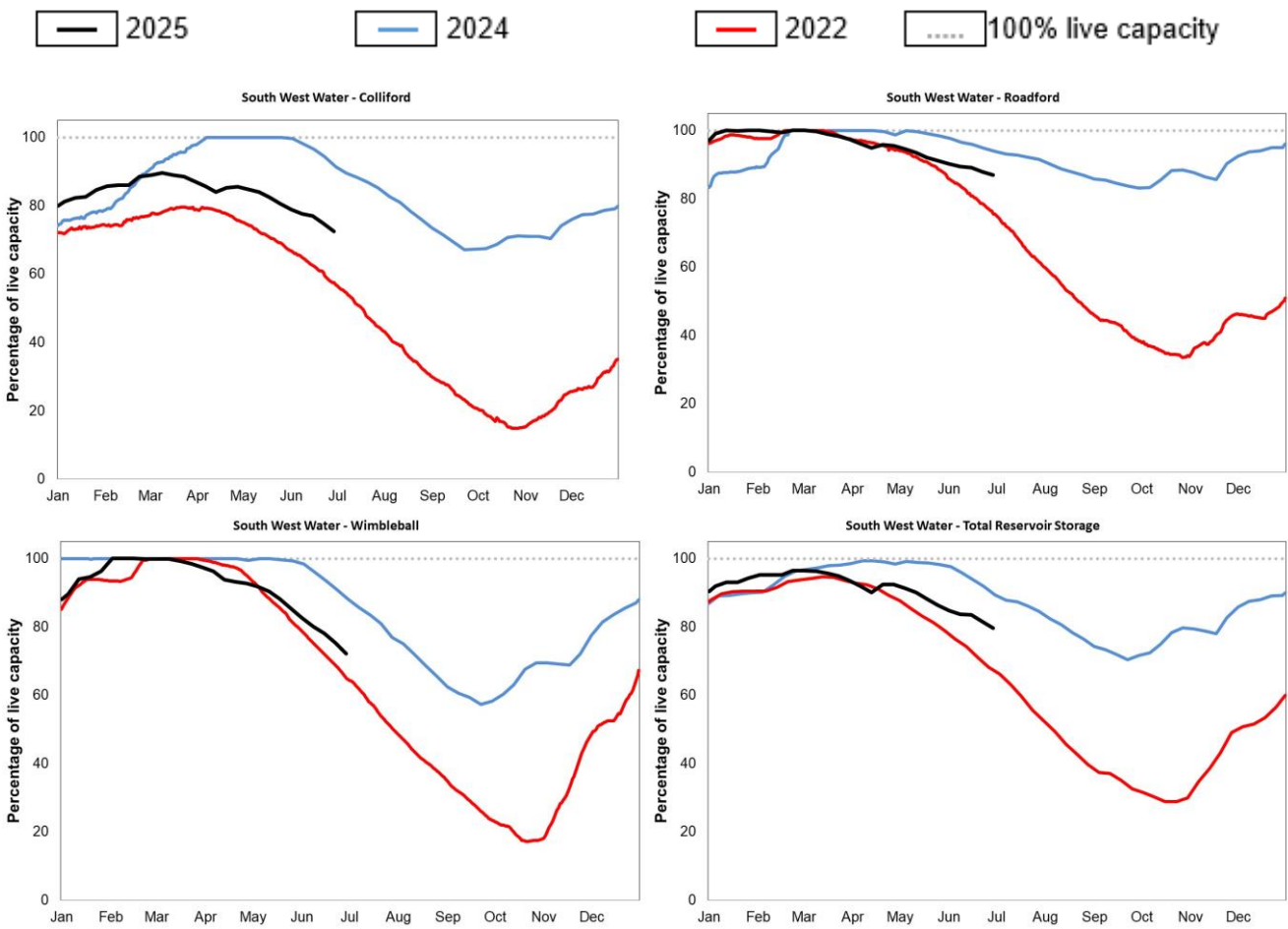




Source: Environment Agency, 2025.

# 6 Reservoir stocks

Figure 6.1: End of month reservoir storage compared to previous year and a historic drought year. Note: Historic records of individual reservoirs vary in length.



(Source: South West Water).

## 7 Glossary

### 7.1 Terminology

#### **Aquifer**

A geological formation able to store and transmit water.

#### **Areal average rainfall**

The estimated average depth of rainfall over a defined area. Expressed in depth of water (mm).

#### **Artesian**

The condition where the groundwater level is above ground surface but is prevented from rising to this level by an overlying continuous low permeability layer, such as clay.

#### **Artesian borehole**

Borehole where the level of groundwater is above the top of the borehole and groundwater flows out of the borehole when unsealed.

#### **Cumecs**

Cubic metres per second ( $\text{m}^3\text{s}^{-1}$ ).

#### **Effective rainfall**

The rainfall available to percolate into the soil or produce river flow. Expressed in depth of water (mm).

#### **Flood alert and flood warning**

Three levels of warnings may be issued by the Environment Agency. Flood alerts indicate flooding is possible. Flood warnings indicate flooding is expected. Severe flood warnings indicate severe flooding.

#### **Groundwater**

The water found in an aquifer.

**Long term average (LTA)**

The arithmetic mean calculated from the historic record, usually based on the period 1991 to 2020. However, the period used may vary by parameter being reported on (see figure captions for details).

**mAOD**

Metres above ordnance datum (mean sea level at Newlyn Cornwall).

**MORECS**

Met Office Rainfall and Evaporation Calculation System. Met Office service providing real time calculation of evapotranspiration, soil moisture deficit and effective rainfall on a 40 by 40 km grid.

**Naturalised flow**

River flow with the impacts of artificial influences removed. Artificial influences may include abstractions, discharges, transfers, augmentation and impoundments.

**NCIC**

National Climate Information Centre. NCIC area monthly rainfall totals are derived using the Met Office 5 km gridded dataset, which uses rain gauge observations.

**Recharge**

The process of increasing the water stored in the saturated zone of an aquifer. Expressed in depth of water (mm).

**Reservoir gross capacity**

The total capacity of a reservoir.

**Reservoir live capacity**

The capacity of the reservoir that is normally usable for storage to meet established reservoir operating requirements. This excludes any capacity not available for use (for example, storage held back for emergency services, operating agreements or physical restrictions). May also be referred to as 'net' or 'deployable' capacity.

**Soil moisture deficit (SMD)**

The difference between the amount of water actually in the soil and the amount of water the soil can hold. Expressed in depth of water (mm).



## 7.2 Categories

### **Exceptionally high**

Value likely to fall within this band 5% of the time.

### **Notably high**

Value likely to fall within this band 8% of the time.

### **Above normal**

Value likely to fall within this band 15% of the time.

### **Normal**

Value likely to fall within this band 44% of the time.

### **Below normal**

Value likely to fall within this band 15% of the time.

### **Notably low**

Value likely to fall within this band 8% of the time.

### **Exceptionally low**

Value likely to fall within this band 5% of the time.

## 8 Appendices

### 8.1 Rainfall table

| Hydrological area           | Jun 2025 rainfall % of long term average 1991 to 2020 | Jun 2025 band | Apr 2025 to June cumulative band | Jan 2025 to June cumulative band | Jul 2024 to June cumulative band |
|-----------------------------|-------------------------------------------------------|---------------|----------------------------------|----------------------------------|----------------------------------|
| Avon Dart And Erme          | 149                                                   | Notably High  | Above normal                     | Above normal                     | Above normal                     |
| Exe                         | 109                                                   | Normal        | Normal                           | Normal                           | Normal                           |
| Fal And St Austell          | 122                                                   | Normal        | Above normal                     | Above normal                     | Normal                           |
| North Cornwall              | 130                                                   | Above Normal  | Notably high                     | Above normal                     | Above normal                     |
| Otter Sid Axe And Lim       | 78                                                    | Normal        | Normal                           | Normal                           | Normal                           |
| Seaton Looe And Fowey       | 126                                                   | Above Normal  | Above normal                     | Normal                           | Normal                           |
| Tamar                       | 143                                                   | Above Normal  | Above normal                     | Above normal                     | Normal                           |
| Taw And North Devon Streams | 136                                                   | Above Normal  | Above normal                     | Normal                           | Normal                           |
| Teign And Torbay            | 137                                                   | Above Normal  | Above normal                     | Normal                           | Above normal                     |

|                                     |     |                 |              |              |        |
|-------------------------------------|-----|-----------------|--------------|--------------|--------|
| Torridge And<br>Hartland<br>Streams | 142 | Above<br>Normal | Above normal | Normal       | Normal |
| West<br>Cornwall                    | 102 | Normal          | Above normal | Above normal | Normal |

## 8.2 River flows table

| Site name        | River     | Catchment                     | Jun 2025 band | May 2025 band |
|------------------|-----------|-------------------------------|---------------|---------------|
| Austins Bridge   | Dart      | Dart                          | Notably high  | Below normal  |
| Bellever         | East Dart | Dart                          | Notably high  | Below normal  |
| Bodmin Dunmere   | Camel     | Camel                         | Above normal  | Normal        |
| Chudleigh Bridge | Teign     | Teign                         | Above normal  | Below normal  |
| Dotton           | Otter     | Otter                         | Normal        | Notably low   |
| Gunnislake       | Tamar     | Tamar                         | Normal        | Normal        |
| Gwills           | Gannel    | Gannel                        | Normal        | Normal        |
| Restormel        | Fowey     | Fowey                         | Normal        | Normal        |
| St Erth          | Hayle     | Hayle                         | Notably high  | Notably high  |
| Thorverton       | Exe       | Exe                           | Normal        | Normal        |
| Torrington       | Torridge  | Torridge                      | Normal        | Below normal  |
| Truro            | Kenwyn    | Tresillian<br>Trevella Kenwyn | Above normal  | Normal        |
| Umberleigh       | Taw       | Taw                           | Above normal  | Below normal  |
| Whitford         | Axe       | Axe Devon                     | Normal        | Normal        |

### 8.3 Groundwater table

| Site name           | Aquifer                         | End of Jun<br>2025 band | End of May<br>2025 band |
|---------------------|---------------------------------|-------------------------|-------------------------|
| Branscombe Lane     | Dawlish Sandstone               | Notably high            | Above normal            |
| Bussels No7a        | Dawlish Sandstone               | Normal                  | Normal                  |
| Coleford Production | Permian Breccias And Sandstones | Normal                  | Normal                  |
| Whitlands           | Upper Greensand                 | Exceptionally high      | Exceptionally high      |
| Winnards Perch B.h. | Staddon Formation               | Normal                  | Normal                  |
| Woodbury Common No2 | Budleigh Salterton Pebble Beds  | Normal                  | Normal                  |
| Woodleys No1        | Otterton Sandstone Formation    | Normal                  | Normal                  |